

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 1-17, and 34-60.

Listing of Claims:

1-17 (Canceled).

18. (Original) A method for planarizing a microelectronic substrate with a planarizing machine having a planarizing medium that includes a non-abrasive polishing pad and an abrasive slurry, the method comprising:

moving one of the polishing pad and the microelectronic substrate relative to the other of the polishing pad and the microelectronic substrate to remove material from the microelectronic substrate; and

maintaining a pH of the microelectronic substrate at an approximately constant level by maintaining a pH of the abrasive slurry at an approximately constant level while reducing a relative velocity between the microelectronic substrate and the polishing pad to approximately zero.

19. (Original) The method of claim 18 wherein maintaining the pH of the microelectronic substrate includes reducing attractive forces between the microelectronic substrate and the material removed from the microelectronic substrate.

20. (Original) The method of claim 18 wherein the polishing pad has a planarizing surface adjacent the microelectronic substrate, further comprising passing the abrasive slurry upwardly through openings in the planarizing surface of the polishing pad.

21. (Original) The method of claim 18 wherein the polishing pad has a planarizing surface adjacent the microelectronic substrate, further comprising depositing the abrasive slurry downwardly onto the planarizing surface of the polishing pad.

22. (Original) The method of claim 18, further comprising selecting the abrasive slurry to include ammonia.

23. (Original) The method of claim 18, further comprising selecting the abrasive slurry to have a pH in the range of approximately 10.6 to approximately 11.4.

24. (Original) The method of claim 18, further comprising selecting the abrasive slurry to have a pH of approximately 11.0.

25. (Original) The method of claim 18 wherein maintaining the pH of the microelectronic substrate includes reducing the relative velocity between the microelectronic substrate and the polishing pad to approximately zero over a period of time in the range of approximately twenty seconds to approximately forty seconds.

26. (Original) The method of claim 18, further comprising removing polishing pad material from the polishing pad by contacting the polishing pad with a conditioning liquid having a pH approximately equal to a pH of the abrasive slurry.

27. (Original) The method of claim 26 wherein the polishing pad has a planarizing surface for removing material from the microelectronic substrate, further comprising buffing the microelectronic substrate on the planarizing surface by engaging the microelectronic substrate with the polishing pad after removing polishing pad material from the planarizing surface and moving at least one of the polishing pad and the microelectronic substrate relative to the other of the polishing pad and the microelectronic substrate.

28. (Original) The method of claim 18, further comprising moving the microelectronic substrate from the polishing pad to a rinsing location spaced apart from the polishing pad and rinsing the microelectronic substrate at the rinsing location with a rinsing fluid having a pH approximately equal to a pH of the abrasive slurry.

29. (Original) The method of claim 28 wherein rinsing the microelectronic substrate includes rinsing the microelectronic substrate for a period of approximately five seconds.

30. (Original) The method of claim 28, further comprising selecting the rinsing liquid to include deionized water and tetramethyl ammonium hydroxide.

31. (Original) The method of claim 30 wherein selecting the rinsing liquid includes selecting a volume of the tetramethyl ammonium hydroxide to be approximately 0.006% of a volume of the deionized water.

32. (Original) The method of claim 28, further comprising selecting the rinsing liquid to have a pH in the range of approximately 10.6 to approximately 11.4.

33. (Original) The method of claim 28, further comprising selecting the rinsing liquid to have a pH of approximately 11.0.

34-60 (Canceled)

61. (Original) A method for processing a surface of a microelectronic substrate after planarizing the microelectronic substrate, the method comprising:

selecting a rinsing fluid to have a pH approximately equal to a pH of a planarizing fluid that contacts the microelectronic substrate during planarization of the microelectronic substrate, the rinsing fluid having a different chemical composition than a chemical composition of the planarizing fluid; and

supplying the rinsing fluid to the surface of the microelectronic substrate to remove particulates from a surface of the microelectronic substrate after planarizing the microelectronic substrate.

62. (Original) The method of claim 61 wherein planarizing the microelectronic substrate includes engaging the microelectronic substrate with a planarizing

surface and supplying a rinsing fluid to a surface of the microelectronic substrate includes passing the rinsing fluid upwardly through openings in the planarizing surface adjacent the microelectronic substrate.

63. (Original) The method of claim 61 wherein planarizing the microelectronic substrate includes engaging the microelectronic substrate with an upward facing planarizing surface and supplying a rinsing fluid to a surface of the microelectronic substrate includes depositing the rinsing fluid downwardly onto the planarizing surface adjacent the microelectronic substrate.

64. (Original) The method of claim 61 wherein planarizing the microelectronic substrate includes engaging the microelectronic substrate with a polishing pad and supplying the rinsing fluid occurs while the microelectronic substrate remains engaged with the polishing pad.

65. (Original) The method of claim 61 wherein planarizing the microelectronic substrate includes engaging the microelectronic substrate with a polishing pad, further comprising moving the microelectronic substrate from the polishing pad to a rinsing location that is spaced apart from the polishing pad and rinsing the microelectronic substrate at the rinsing location with the rinsing fluid.

66. (Original) The method of claim 65 wherein rinsing the microelectronic substrate is conducted for approximately five seconds.

67. (Original) The method of claim 61 wherein selecting the rinsing fluid includes selecting the rinsing fluid to include deionized water and tetramethyl ammonium hydroxide.

68. (Original) The method of claim 61 wherein selecting the rinsing fluid includes selecting the rinsing fluid to include a volume of the tetramethyl ammonium hydroxide to be approximately 0.006% of a volume of the deionized water.

69. (Original) The method of claim 61 wherein selecting the rinsing fluid includes selecting the rinsing fluid to have a pH in the range of approximately 10.6 to approximately 11.4.

70. (Original) The method of claim 61 wherein selecting the rinsing fluid includes selecting the rinsing fluid to have a pH of approximately 11.0.

71. (Original) A method for processing a microelectronic substrate with a planarizing machine having a polishing pad, the method comprising:

planarizing the microelectronic substrate by moving at least one of the polishing pad and the microelectronic substrate relative to the other of the polishing pad and the microelectronic substrate to remove material from the microelectronic substrate;

conditioning a planarizing surface of the polishing pad by removing polishing pad material from the planarizing surface after removing material from the microelectronic substrate; and

cleaning the microelectronic substrate to remove particles adhered to the microelectronic substrate by engaging the microelectronic substrate with the same planarizing surface and moving at least one of the polishing pad and the microelectronic substrate relative to the other of the polishing pad and the microelectronic substrate after conditioning the polishing pad.

72. (Original) The method of claim 71 wherein conditioning the polishing pad includes roughening the planarizing surface of the polishing pad.

73. (Original) The method of claim 71 wherein cleaning the microelectronic substrate includes disposing a rinsing liquid on the planarizing surface of the polishing pad.

74. (Original) The method of claim 73 wherein planarizing the microelectronic substrate includes disposing a planarizing liquid on the planarizing surface of the polishing pad, the planarizing liquid having a pH, further comprising selecting a pH of the rinsing liquid to be approximately the same as the pH of the planarizing liquid.

75. (Original) The method of claim 71 wherein planarizing the microelectronic substrate includes supplying a planarizing liquid to the polishing pad and cleaning the microelectronic substrate includes supplying a rinsing liquid to the polishing pad while moving the at least one of the polishing pad and the microelectronic substrate relative to the other of the polishing pad and the microelectronic substrate, the rinsing liquid having a pH approximately the same as a pH of the planarizing liquid.

76. (Original) The method of claim 75 wherein supplying the rinsing liquid includes selecting the selecting the rinsing liquid to include deionized water and tetramethyl ammonium hydroxide.

77. (Original) The method of claim 76 wherein selecting the rinsing fluid includes selecting a volume of the tetramethyl ammonium hydroxide to be approximately 0.006% of a volume of the deionized water.